Nothing Compares
NORTH CAROLINA

October 7, 2016

FY 2017 Maintenance Allocations JLTOC

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Consolidation of Primary and Secondary Maintenance to General Maintenance Reserve (GMR)

Previous Years' Appropriations

$135M to $145M

~$300M

~$0 to 45M

Consolidation of Primary and Secondary to GMR

SL16-94, SECTION 35.24.(a) The Department of Transportation shall transfer all funds in the Primary Maintenance Account (Fund Code 7821) and the Secondary Road Maintenance and Improvement Fund (Fund Code 7822) to the Reserve for General Maintenance (Fund Code 0934).

FY 2017

$467.6M

Consolidation of Maintenance Accounts & Allocation

SECTION 35.24.(b) The Department of Transportation, in consultation with its Division Engineers, shall determine the amount of funds from the Reserve for General Maintenance needed for other purposes prior to making the allocation under G.S. 136-44.6, as amended by subsection (c) of this section. The term "other purposes*" includes emergency responses, weather-related events, and statewide programs.

July 7, 2016 Allocations Workshop:

- Division Engineers and Division Maintenance Engineers
- Transparent process, open communication
- Purpose- to achieve consensus on:

    1. Enterprise Programs*- What and how much comes off the top?
    2. Distribution Formulas- How to allocate the remainder of GMR?

GMR Formula Development

$ Available to Distribute: Total Appropriation – Enterprise Program Allocations

Enterprise Programs

Total Appropriation
- Emergency
- Research and Development
- Asset Management & Operations
- State & Federal Program

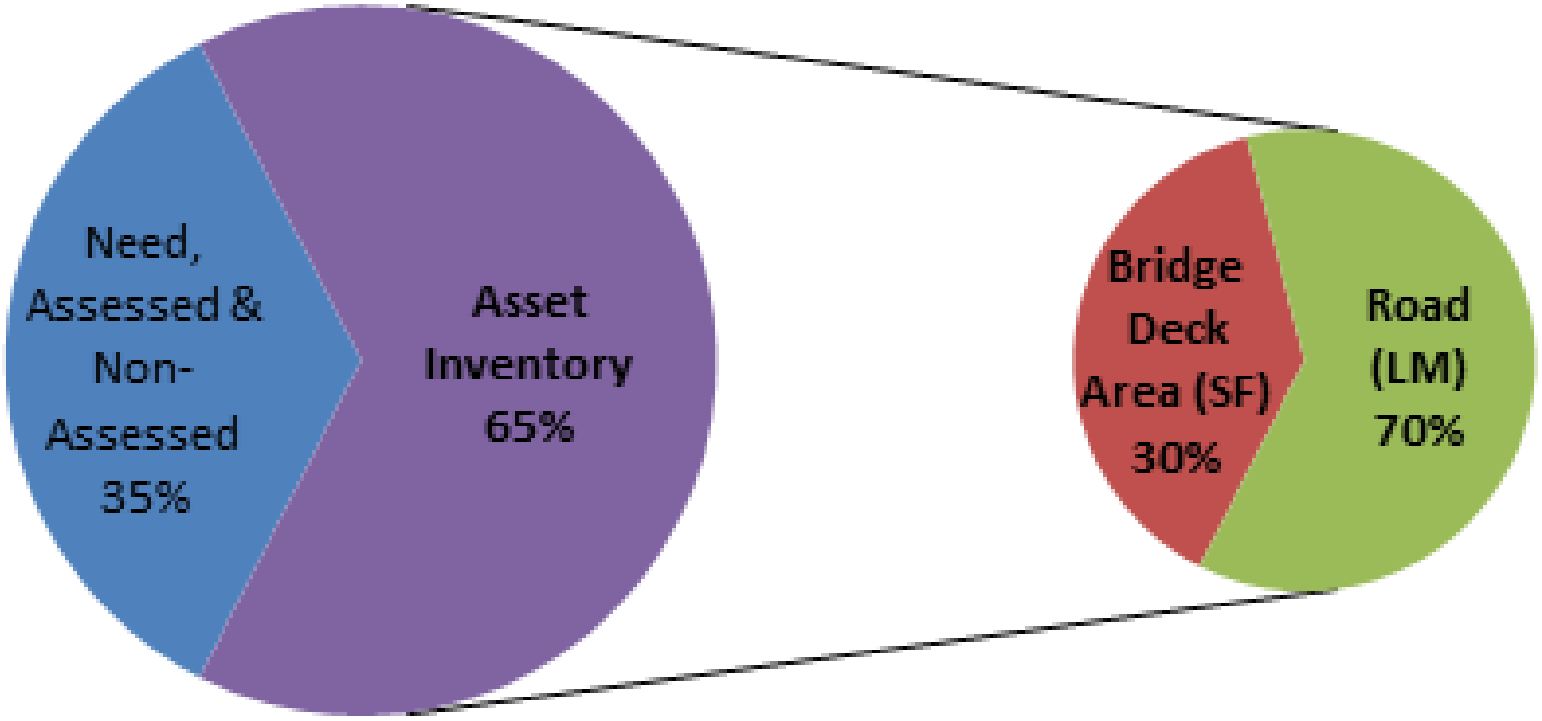
$ Available to Distribute

Enterprise Programs- Workshop Decisions

Enterprise Program	Allocation	Examples of Activities Covered
Emergencies	$90,000,000	Snow & ice, mud slides, sink holes, non-declared emergency events, etc.
Research & Development	$550,000	Management & technical training, develop & implement maintenance technologies, etc.
Asset Management & Operations	$17,800,000	Central bridge emergency repair & replacements, rest area R&R, pavement data collection & analysis, national pollutant discharge elimination system compliance, asphalt storage tank replacement, IMAP, signal maintenance, NC 511, etc.
State & Federal Obligations	$12,695,000	Asphalt testing lab corrective actions, beaver control, drug & alcohol testing (CDL licensed employees), historical markers, railroad signal maintenance, state park roads, weigh stations, etc.
Inmate Labor*	$9,140,000	*Not taken off the top- an adjustment to each division's GMR allocation is made on the back end of distribution based on the percentage of labor used

GMR Distribution Formula

Division Allocation= $ Available to Distribute X (0.35 X Needs + 0.65 X Inventory)



SF = Square Feet
LM = Lane Miles

Distribution Formulas Defined

Div Allocation = $ Available to Distribute X (0.65 X %Inventory + 0.35 X %Needs)

- **$ Available to Distribute:** Total Appropriation – Enterprise Program Allocations
- **Inventory:** (Div % Lane Miles X 0.70) + (Div % Square Feet of Bridge Deck X 0.30)
- **Needs: (**Div % **Non-Assessed Needs** acquired via historical expenditure activity) + (Div % **Assessed Needs** acquired via condition assessments

Non-Assessed Needs

Division specific needs based on historical expenditures

Examples:

- Traffic control devices
- Roadway lighting
- Rest area maintenance
- River ferries
- Major events

Assessed Needs: Maintenance Condition Assessment Program (MCAP)

- Assessed Elements: shoulder, lateral ditches, crossline pipes blocked, crossline pipes damaged, gutters blocked, inlets (blocked/damaged), brush & tree control, turf condition, pavement striping, words & symbols, pavement markers

- Method: inspection teams; random sampling by system
  - Level:
    - interstate- division
    - primary & secondary- county
  - 90% confidence with a margin of error +/- 5%
  - Assess over 22,000 random 1/10th mile sections

- Frequency: year round, quarterly

Performance Measures

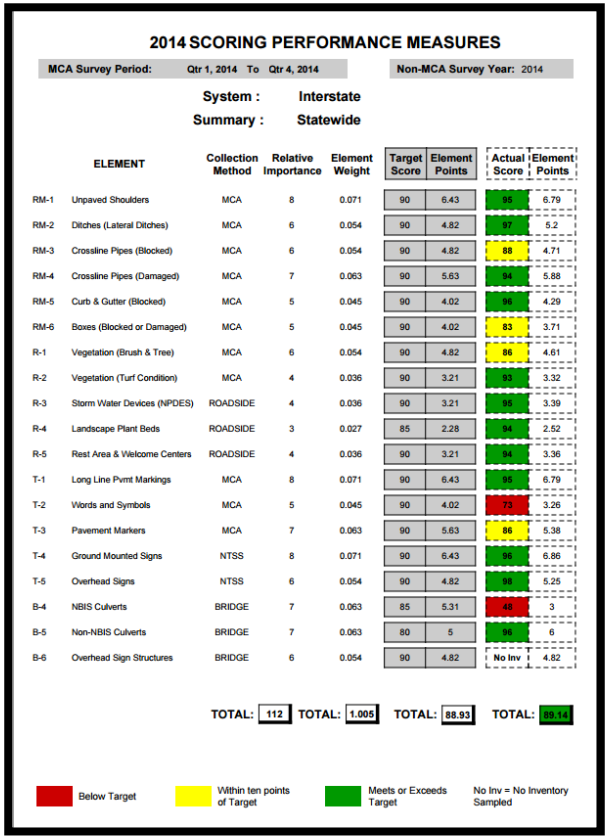
- Defines the expectations for element condition or operating Level of Service
- Element Groups- pavement, bridge, roadside, traffic, & roadway maintenance

Examples for Roadway Maintenance

SHEET NO.	ASSET	CONDITION INDICATOR
RM-1	Unpaved Shoulders (Low & High Shoulder)	No dropoff's greater than 3-inches and no shoulders higher than 2-inches
RM-2	Ditches (Lateral Ditches)	No blocked, eroded or non-functioning ditches
RM-3	Crossline Pipes (Blocked)	Greater than 50% diamter opening
RM-4	Crossline Pipes (Damaged)	No damaged of structural deficiency affecting functionality
RM-5	Curn & Gutter (Blocked)	No obstruction greater than 2-inches for 2-feet
RM-6	Boxes (Blocked or Damaged)	Grates and outlet pipe of drain boxes not blocked greater than 50%. Inlet and outlet boxes are not damaged, and grates are present and not broken.

Condition Rating Score Card

- Statewide, Division, County
- Interstate, Primary, Secondary
- Updated Quarterly – Rolling Year



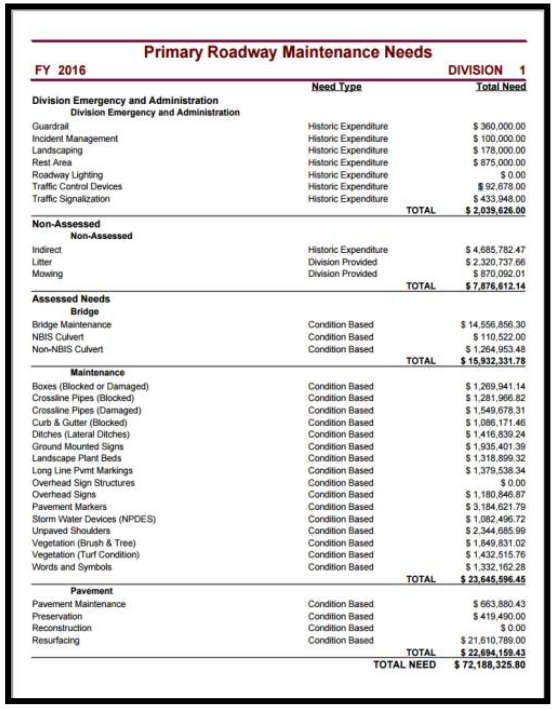
2014 SCORING PERFORMANCE MEASURES

MCA Survey Period: Qtr 1, 2014 To Qtr 4, 2014 — Non-MCA Survey Year: 2014

System : Interstate
Summary : Statewide

	ELEMENT	Collection Method	Relative Importance	Element Weight	Target Score	Element Points	Actual Score	Element Points
RM-1	Unpaved Shoulders	MCA	8	0.071	90	6.43	95	6.79
RM-2	Ditches (Lateral Ditches)	MCA	6	0.054	90	4.82	97	5.2
RM-3	Crossline Pipes (Blocked)	MCA	6	0.054	90	4.82	88	4.71
RM-4	Crossline Pipes (Damaged)	MCA	7	0.063	90	5.63	94	5.88
RM-5	Curb & Gutter (Blocked)	MCA	5	0.045	90	4.02	96	4.29
RM-6	Boxes (Blocked or Damaged)	MCA	5	0.045	90	4.02	83	3.71
R-1	Vegetation (Brush & Tree)	MCA	6	0.054	90	4.82	86	4.61
R-2	Vegetation (Turf Condition)	MCA	4	0.036	90	3.21	93	3.32
R-3	Storm Water Devices (NPDES)	ROADSIDE	4	0.036	90	3.21	95	3.39
R-4	Landscape Plant Beds	ROADSIDE	3	0.027	85	2.28	94	2.52
R-5	Rest Area & Welcome Centers	ROADSIDE	4	0.036	90	3.21	94	3.36
T-1	Long Line Pvmt Markings	MCA	8	0.071	90	6.43	95	6.79
T-2	Words and Symbols	MCA	5	0.045	90	4.02	73	3.26
T-3	Pavement Markers	MCA	7	0.063	90	5.63	86	5.38
T-4	Ground Mounted Signs	NTSS	8	0.071	90	6.43	96	6.86
T-5	Overhead Signs	NTSS	6	0.054	90	4.82	98	5.25
B-4	NBIS Culverts	BRIDGE	7	0.063	85	5.31	48	3
B-5	Non-NBIS Culverts	BRIDGE	7	0.063	80	5	96	6
B-6	Overhead Sign Structures	BRIDGE	6	0.054	90	4.82	No Inv	4.82
					TOTAL: 112	TOTAL: 1.005	TOTAL: 88.93	TOTAL: 89.14

Below Target | Within ten points of Target | Meets or Exceeds Target | No Inv = No Inventory Sampled



Primary Roadway Maintenance Needs

FY 2016 — DIVISION 1

	Need Type	Total Need
Division Emergency and Administration		
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Guardrail	Historic Expenditure	$ 360,000.00
Incident Management	Historic Expenditure	$ 100,000.00
Landscaping	Historic Expenditure	$ 178,000.00
Rest Area	Historic Expenditure	$ 875,000.00
Roadway Lighting	Historic Expenditure	$ 0.00
Traffic Control Devices	Historic Expenditure	$ 92,678.00
Traffic Signalization	Historic Expenditure	$ 433,948.00
	TOTAL	$ 2,039,626.00
Non-Assessed		
Non-Assessed		
Indirect	Historic Expenditure	$ 4,685,782.47
Litter	Division Provided	$ 2,320,737.66
Mowing	Division Provided	$ 870,092.01
	TOTAL	$ 7,876,612.14
Assessed Needs		
Bridge		
Bridge Maintenance	Condition Based	$ 14,556,856.30
NBIS Culvert	Condition Based	$ 110,522.00
Non-NBIS Culvert	Condition Based	$ 1,264,953.48
	TOTAL	$ 15,932,331.78
Maintenance		
Boxes (Blocked or Damaged)	Condition Based	$ 1,269,941.14
Crossline Pipes (Blocked)	Condition Based	$ 1,281,966.82
Crossline Pipes (Damaged)	Condition Based	$ 1,549,678.31
Curb & Gutter (Blocked)	Condition Based	$ 1,086,171.46
Ditches (Lateral Ditches)	Condition Based	$ 1,416,839.24
Ground Mounted Signs	Condition Based	$ 1,935,401.39
Landscape Plant Beds	Condition Based	$ 1,318,899.32
Long Line Pvmt Markings	Condition Based	$ 1,379,538.34
Overhead Sign Structures	Condition Based	$ 0.00
Overhead Signs	Condition Based	$ 1,180,846.87
Pavement Markers	Condition Based	$ 3,184,621.79
Storm Water Devices (NPDES)	Condition Based	$ 1,082,496.72
Unpaved Shoulders	Condition Based	$ 2,344,685.99
Vegetation (Brush & Tree)	Condition Based	$ 1,849,831.02
Vegetation (Turf Condition)	Condition Based	$ 1,432,515.76
Words and Symbols	Condition Based	$ 1,332,162.28
	TOTAL	$ 23,645,596.45
Pavement		
Pavement Maintenance	Condition Based	$ 663,880.43
Preservation	Condition Based	$ 419,490.00
Reconstruction	Condition Based	$ 0.00
Resurfacing	Condition Based	$ 21,610,789.00
	TOTAL	$ 22,694,159.43
	TOTAL NEED	$ 72,188,325.80

Need Sheets

- Summary of Need
- By Division
- By Category
- By System

GMR Distribution Formula Results

GMR Appropriation	$467,583,999
Enterprise Allocations	$121,045,000
Available for Distribution	$346,538,999

INVENTORY (0.65)					NEEDS (0.35)			TOTAL
Div	Lane Miles	SF Bridge Deck	Percent of Combined Inventory (Weighted)	Allocation (Inventory) ($)	Total Maintenance Needs ($)	Total Maintenance Needs (%)	Allocation (Needs) ($)	Total GMR Allocation($)
1	10,910.49	10,078,839	7.59%	17,089,842	72,020,745	7.51%	9,110,569	26,200,411
2	10,815.56	7,256,289	6.67%	15,020,229	42,904,719	4.47%	5,427,414	20,447,643
3	12,062.56	6,729,175	7.01%	15,794,152	60,728,907	6.33%	7,682,160	23,476,312
4	13,733.38	6,832,502	7.72%	17,399,743	58,290,028	6.08%	7,373,644	24,773,387
5	14,949.89	10,244,782	9.28%	20,912,651	76,997,147	8.03%	9,740,080	30,652,731
6	13,325.46	5,169,899	7.04%	15,857,676	67,151,797	7.00%	8,494,651	24,352,327
7	12,128.53	7,558,559	7.30%	16,437,224	71,906,280	7.50%	9,096,090	25,533,314
8	14,588.31	5,523,443	7.66%	17,264,700	64,862,793	6.76%	8,205,094	25,469,794
9	10,969.83	6,527,379	6.50%	14,649,804	61,326,006	6.40%	7,757,693	22,407,497
10	11,424.31	8,470,456	7.29%	16,431,590	68,060,333	7.10%	8,609,580	25,041,170
11	12,474.52	4,097,802	6.36%	14,323,900	74,009,322	7.72%	9,362,123	23,686,022
12	13,102.01	5,963,190	7.20%	16,209,855	81,927,524	8.54%	10,363,769	26,573,624
13	10,861.71	6,664,458	6.50%	14,646,888	85,173,929	8.88%	10,774,437	25,421,325
14	10,502.06	5,091,528	5.87%	13,212,096	73,449,810	7.66%	9,291,345	22,503,441
Total	**171,848.63**	**96,208,301**		**225,250,349**	**958,809,340**		**121,288,650**	**346,538,999**

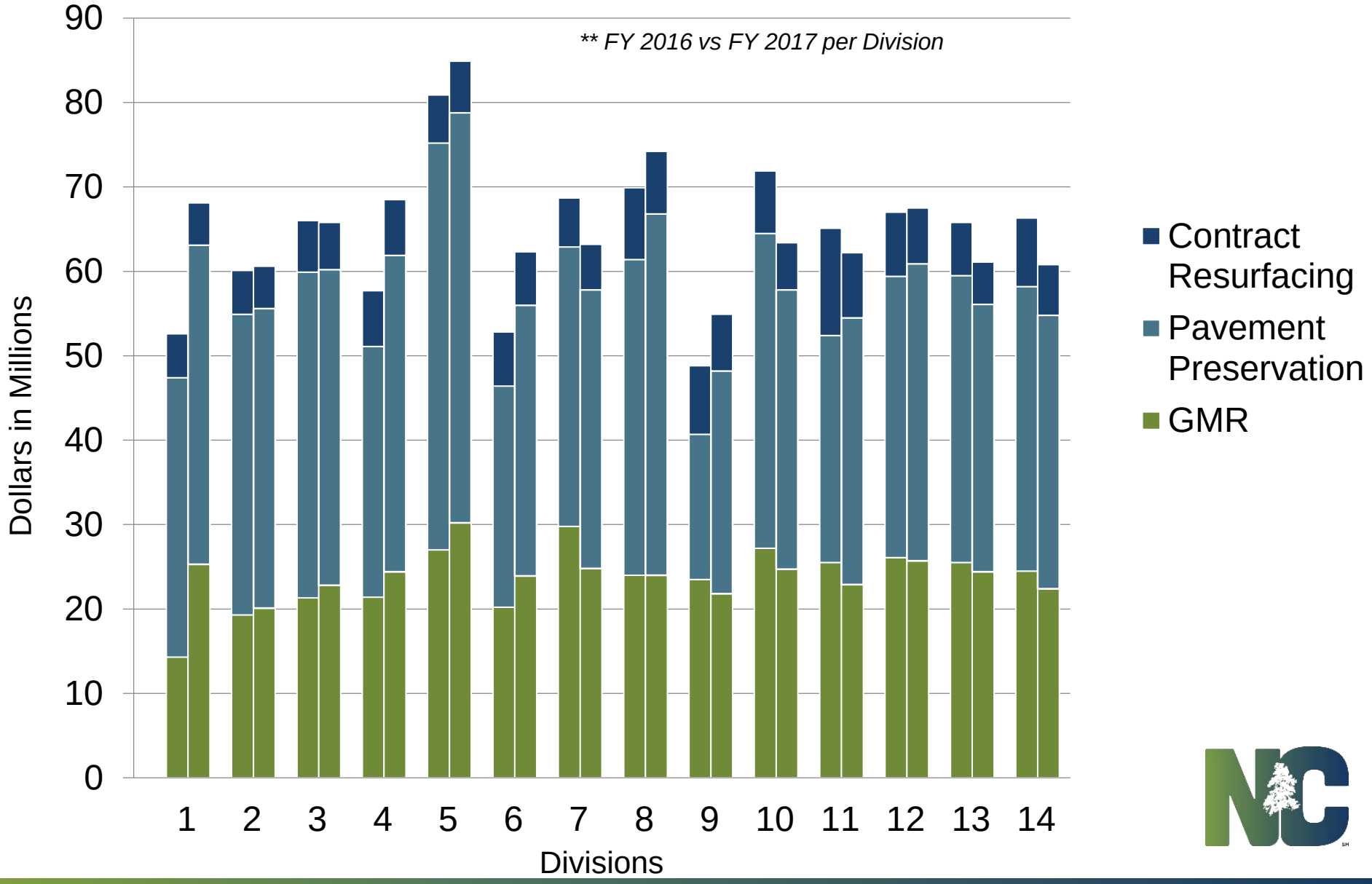
GMR Distribution Formula Results

GMR Appropriation	$467,583,999
Enterprise Allocations	$121,045,000
Available for Distribution	$346,538,999

Adjustment for Inmate Labor

Div	Total GMR Allocation($)	Percent Inmate Labor Usage	Adjustment for Inmate Labor (Reduction)	Final GMR Distribution
1	26,200,411	9.59%	(876,764)	25,323,647
2	20,447,643	3.85%	(351,461)	20,096,182
3	23,476,312	7.19%	(657,038)	22,819,274
4	24,773,387	3.77%	(344,908)	24,428,479
5	30,652,731	5.46%	(499,456)	30,153,276
6	24,352,327	5.07%	(463,225)	23,889,102
7	25,533,314	7.67%	(700,701)	24,832,613
8	25,469,794	16.26%	(1,486,237)	23,983,557
9	22,407,497	6.75%	(617,179)	21,790,318
10	25,041,170	3.59%	(328,502)	24,712,668
11	23,686,022	9.13%	(834,382)	22,851,640
12	26,573,624	9.16%	(837,160)	25,736,464
13	25,421,325	11.72%	(1,071,465)	24,349,860
14	22,503,441	0.78%	(71,522)	22,431,919
	346,538,999		**(9,140,000)**	**337,398,999**

Division Maintenance Allocations



Division Perspective

- Gives a more predictable and consistent funding stream that the Divisions can better plan operations and personnel levels

- Division maintenance operational money came in lump sum in GMR
  - Flexibility to determine how much we need in our Primary and Secondary allocations
  - Gives ability to take our ‘hard’ costs off the top, and then split the remainder into Primary / Secondary for operations
  - Will promote more accurate operational costs

- Challenges
  - Move to More of an Asset Management Based Budget

Questions?